

January 4, 2022

Detroit Public Health STD Clinic

Doxycycline Post-Exposure Prophylaxis Protocol

The CDC has released considerations for doxy-PEP as an STI prevention strategy, but there is not yet detailed guidance from CDC on doxy-PEP, for which its indication is currently off-label. STIs can cause significant morbidity and reducing STI rates in Detroit is an urgent public health priority. Doxy-PEP is the first biomedical prevention tool that has been shown to be effective and well-tolerated and community awareness is growing.

The protocol proposed here has been adapted from the San Francisco Department of Health, who released recommendations on October 20, 2022 on the use of doxy-PEP to reduce STI incidence in MSM and TGW at risk of bacterial STIs.

Efficacy/Evidence

- I. In persons taking HIV PrEP, doxy-PEP reduced syphilis by 87%, chlamydia by 88% and gonorrhea by 55%.
- II. In PLWH, doxy-PEP reduced syphilis by 77%, chlamydia by 74% and gonorrhea by 57%.
- III. Doxy-PeP does NOT prevent HIV, MPox, HPV, or HSV.

Guidelines and Recommendations

I. Who to Recommend Doxy-PeP To

- a. Cisgender men who have sex with men (MSM) and transgender women (TGW) who have sex with men :
 - i. Have had a bacterial STI in the past year AND
 - ii. Report condomless anal or oral sexual contact with ≥ 1 cis male or trans female partner in the past year

** These were the eligibility criteria used for the DoxyPEP study.

**Patients with a history of syphilis should be prioritized for doxy-PEP.

- b. Consider offering to MSM and TGW who have had multiple sex partners in the past year or engages in group sex or chem-sex, even if they have not been previously diagnosed with an STI

** At this time, there is insufficient evidence to recommend doxy-PEP for STI prevention for individuals who report receptive vaginal sex

** If used in people who are able to become pregnant, pregnancy testing should be conducted as doxycycline use should be avoided in pregnancy.

II. Dosing and Prescribing

- a. 200 mg of doxycycline should be taken ideally within 24 hours but no later than 72 hours after condomless oral, anal or vaginal sex.
- b. Doxycycline can be taken as often as every day, depending on frequency of sexual activity, but individuals should not take more than 200 mg within a 24 hour period.
- c. Either doxycycline hyclate delayed release 200 mg (1 tab) OR doxycycline hyclate or monohydrate immediate release 100 mg (2 tabs taken simultaneously) are acceptable.
- d. Immediate release may be less expensive than delayed release and should be equivalently bioavailable.
- e. For ICD10 diagnosis code, use Z20.2 (Contact with and (suspected) exposure to infections with a predominantly sexual mode of transmission).

III. Monitoring While Taking Doxycycline

- a. Per the doxycycline package insert, LFTs, renal function and a CBC should be checked periodically in patients taking doxycycline for a prolonged period.

** LFTs and CBCs were monitored in the DoxyPEP study, and there were no laboratory-related severe adverse events.

- b. Persons taking doxy-PEP should be screened every three months for gonorrhea and chlamydia at all anatomic sites of exposure, syphilis, and HIV (if not known to be living with HIV).
- c. If a patient is diagnosed with an STI while using doxy-PEP, they should be treated according to standard CDC STI Treatment Guidelines

IV. Counseling Messages

- a. Counsel about possible drug interactions:
 - i. Risk of sun sensitivity
 - ii. Remaining upright for 30 minutes after taking doxycycline to reduce the risk of pill esophagitis
 - iii. The rare risk of benign intracranial hypertension.
- b. Study data on the impact of doxy-PEP on antibiotic resistance and the gut microbiome are being collected and reviewed.
- c. Impacts of long-term use of doxy-PEP for STI prevention for individual patients and for population-level rates of antimicrobial resistance are unknown, but doxycycline has been previously used safely for long-term prophylaxis of malaria and treatment for acne.

V. Recommend Comprehensive Package of Sexual Health Services

- a. Counsel all HIV-negative patients on HIV PrEP options
 - i. Daily oral PrEP
 - ii. 2 -1-1 dosing strategy
 - iii. Long-acting Cabotegravir for PrEP
- b. Ensure people living with HIV are in care and inform patients on U = U - that maintaining an undetectable HIV viral load eliminates the risk of transmitting HIV to sexual partners
- c. Screen for other STIs every 3 months, regardless of HIV serostatus patients
 - i. gonorrhea and chlamydia using urine, pharyngeal and rectal NAAT testing,
 - ii. Serologic test for syphilis
- d. Recommend and offer the following vaccines which protect against sexually transmitted or sexually associated infections according to current local eligibility and ACIP Guidance
 - i. MPX Vaccine (Jynneos)
 - ii. Meningococcal Vaccine (MenACWY)
 - iii. Hepatitis A/ Hepatitis B
 - iv. HPV